Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Resilient Networks	)	PS Docket No. 21-346
	)	
Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications	)	PS Docket No. 15-80
	)	
New Part 4 of the Commission's Rules Concerning Disruptions to Communications	)	ET Docket No. 04-35

To: The Commission

COMMENTS OF
NATIONAL PUBLIC RADIO, INC.

Introduction

Pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, National Public Radio, Inc. ("NPR") hereby submits Comments on the Notice of Proposed Rulemaking in the above-captioned proceedings.[1]

NPR is a non-profit membership corporation that produces, acquires, and distributes programming to nearly 1,200 public radio stations nationwide for broadcast to the American people. NPR Members and other public radio stations also are significant program producers and media outlets in the communities and regions they serve, and they provide important public services, including emergency alerting and noncommercial educational news and information and

[1] *Resilient Networks*; *Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications*; *New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, PS Docket Nos. 21-346 and 15-80; ET Docket No. 04-35, Notice of Proposed Rulemaking, FCC 21-99 (September 30, 2021) ("NPRM").

cultural programming. NPR provides a variety of digital services to its Member stations, and it represents public radio's collective interests in public policy matters.

NPR also operates the Public Radio Satellite System® ("PRSS") — the satellite and terrestrial content distribution system on which the public radio system – including almost all stations, networks, and producers – generally depends. Stations that receive programming distributed by the PRSS range from those located in remote villages in northern Alaska and on Native American reservations in the Southwest, to major market stations, such as WNYC in New York City and KUSC in Los Angeles. Through almost 400 downlinks, PRSS transmits programs distributed from NPR, other major content producers, and 100 independent radio producers and organizations. The PRSS also provides free, or "in kind," transmission services to distribute programming to un-served or under-served audiences. Currently, full-time support is given to three program service groups: Native Voice One, serving Native American listeners; Satélite Radio Bilingüe, a Spanish-language service; and the African American Public Radio Consortium.

The PRSS plays a vital role in the nation's emergency alert system by receiving Presidential alerts (also called Emergency Action Notification ("EAN") alerts) fed directly from the Federal Emergency Management Agency ("FEMA"), which it can transmit to public radio stations in the event of a nationwide crisis. In addition, the PRSS MetaPub service enables local public radio stations equipped with this technology to issue emergency text and graphic alerts — for instance, tornado and hurricane warnings, evacuation routes, and COVID-19 information — that are visible on screens and synched with over-the-air broadcasts to mobile phones, HD radios, "connected car" smart dashboards, Radio Data System displays, and via online audio streaming. To date, about 10 percent of interconnected public radio stations have the capability to issue live text alerts using the MetaPub system in the event of a natural or humanmade disaster, such as a chemical spill. Some stations, like WWNO in New Orleans, have linked the NOAA/NWS

forecast stream to MetaPub so that weather forecasts and updates for their local area can be broadcast as well as displayed through MetaPub.[2]

I. Public Radio Provides Reliable Communications Before, During, and After Emergencies

In addition to transmitting national emergency alerts, many public radio stations are also connected to their state or county emergency agencies in order to transmit critical emergency messaging targeted to local communities. For example, in cooperation with the Rock Island County, Illinois, Emergency Management Agency ("EMA"), WVIK is the primary relay station for emergency information concerning the Exelon Quad Cities nuclear power generating station. In the event of an emergency at the nuclear plant, the county agency will contact station personnel, and the station will broadcast the EMA message.

From a programming perspective, public radio stations keep their audiences informed continuously during disasters across broadcast and digital platforms. For example, when natural disasters fall short of triggering an EAS alert, public radio stations still provide local weather alerts, announcements from local officials, and information on where residents can access emergency services. The October 2020 ice storm that hit Oklahoma and Texas represents a disaster that, instead of triggering automated alerts, was covered by real-time news reporting. The storm moved swiftly and knocked out power to many communities. KOSU in Stillwater, Oklahoma, and Oklahoma City provided near constant live information about power restoration, debris clean up, and information about alternate voting sites and accommodations made on an emergency basis because the storm occurred less than one week before the 2020 election. KGOU

[2] *See* Statement of Paul Maasson, General Manager, WWNO-FM and WRKF-FM, at FCC Acting Chairwoman Rosenworcel's Field Hearing on Improving Communications Resiliency and Recovery During Disasters, PS Docket Nos. 21-346 and 15 80; ET Docket No. 04-35, at 2 (filed Oct. 26, 2021) ("WWNO/WRKF FCC Statement").

in Norman, Oklahoma, which maintains a relationship with its local ABC affiliate, KOCO-TV, provided continuous, live on-air updates from KOCO-TV to enhance news and weather information across its coverage area, and KGOU followed these real-time updates with reporting and community announcements regarding power restoration, cleanup and emergency services after the emergency event ended. WWNO utilized a similar arrangement with its local NBC affiliate during Hurricane Ida.[3] In the absence of fulsome resources for public radio, this public-private partnership model can increase the public radio programming capacity during disasters, and also support increased public access to TV station weather coverage, particularly during power outages when consumers may not be able turn on their TVs and rely more on radio. However, while public radio greatly values and appreciates partnerships with third-party commercial outlets, public radio stations would not need to depend as much on these affiliates if they had additional reporting resources that provided greater flexibility in serving the public during emergencies.

On-air content is amplified by digital platforms, including streaming and web content, which can provide innovative ways to keep the public informed of developments before, during or after a disaster. For example, in the wake of Hurricane Ida, WWNO tracked power outages over its social media accounts through animated graphics that visualized the data for users.[4] Following the Almeda and Obenchain fires in September 2020 that swept through the Rogue Valley and other parts of Jackson County, Oregon, Jefferson Public Radio in Ashland, Oregon, conducted an evaluation of its response and public service during the emergency. As a result, JPR created an online tool, called the "JPR Wildfire Tracker," to track the status of every active wildfire during the summer 2021 wildfire season. According to the station, users reported positive feedback about

[3] *Id*.

[4] *See id*. at 3; New Orleans Public Radio Twitter Account, https://twitter.com/WWNO/status/1433097321978470400?s=20.

this new JPR website resource, which allows users to keep abreast of wildfire developments before alerts for specific areas may need to be issued.

While stations may have their own disaster preparedness plans in place, each disaster brings a unique set of circumstances related to power outages and infrastructure damage, while essential employees strive to balance concerns for their households which may also have been affected. On a national level, as a fundamental preparedness measure, the PRSS maintains broadcast FM kits with a 350W transmitter and a small studio kit that can be deployed in two business days to a station that has suddenly lost broadcast capability, as long as air transportation is operating and delivery to the last mile can be arranged. NPR, with station support, maintains kits on the East and West Coasts to send to a station in urgent need of reestablishing broadcast operations. For example, PRSS deployed these kits in September 2020 to two Fresno area public radio stations facing wildfires in their area.

PRSS has also assisted in replacing satellite dishes that were destroyed during a disaster. When WTJX in the Virgin Islands lost its auxiliary tower and satellite dish during back-to-back hurricanes Irma and Maria in 2017, the station took an old Ku band dish that was left on the property from a prior tenant and converted it to a C-band dish to capture national content from PRSS. This was accomplished within weeks after the storm. PRSS then provided a replacement satellite dish, but, due to logistical challenges on the island, including shipping and housing an installation crew, the replacement took several months.

The Florida Public Radio Emergency Network ("FPREN"), a collaboration of 13 stations led by joint licensee WUFT in Gainesville, Florida, serves as a model for what a well-resourced public radio network approach toward public safety and emergency response can offer in terms of public service. FPREN provides white-label emergency information content to individual market stations so that public radio, in even the smallest of markets, can become their community's

standard-bearer for critically important public safety information. During events such as hurricanes, flooding, winter storms in South Carolina, and freeze events in northern and even central Florida, FPREN provides live and produced on-air content, customized online content for websites, and automatic social media updates for stations. The FPREN app provides geotargeted information such as live hurricane forecasts, evacuation routes and shelter details, and it live streams the closest Florida public radio station that can serve listeners in the midst of an evacuation when they are moving from one part of the state to another. In addition, South Carolina Educational Television entered into a partnership with FPREN and launched a new emergency preparedness/weather tracking initiative called the SC Emergency Information Network that further supplements this initiative.

WUFT was only able to fully implement this public safety communications program because of state funding provided for FPREN projects. Additional states could establish a similar network approach toward public radio station communications across broadcast and digital platforms for response to tornadoes, wildfires and hurricanes if additional federal or state funding for public radio public safety programs was available. Further, increased funding for MetaPub would provide additional capability for more stations to provide messaging to car radios, which are a critical source of information when TV and internet access is lost.

II. The Commission Should Not Mandate DIRS Reporting

The Commission seeks comment on how it can better promote situational awareness during disasters through the Disaster Information Reporting System ("DIRS"), and it asks whether

it should require service providers, including TV and radio broadcasters, to report their infrastructure status information in DIRS in certain circumstances.[5]

Although public radio stations may be aware of DIRS, it does not appear to have been widely used by stations, if at all. Most stations do not experience extended service outages, primarily because of the extraordinary measures they take to maintain broadcast operations in the wake of a disaster. As WWNO noted in its testimony, "WWNO and WRKF shared simulcasts and studios multiple times in response to damage and technical problems to do whatever it took to stay on the air and provide access to state and local press conferences and emergency updates."[6]

Requiring public radio stations to report in via DIRS would be an unnecessary action that may detract from essential news operations that support the public. If reporting in through DIRS offered stations the opportunity to receive prioritized restoration of power, prioritized access to cellular data or fuel to run generators, or physical access to broadcasting facilities in areas that may be closed due to the disaster, then there may be utility in encouraging stations to report voluntarily into the system.

III. The Commission Should Include Public Radio in Its Resilience Strategies for Addressing Power Outages

The Commission also seeks comment on communications resilience strategies for power outages.[7] The role of public radio stations to provide universal access to news and information and maintain resilient communications should be prioritized in any communications disaster planning. Ninety-eight percent of the U.S. population has access to a public radio signal. The unique ability of radio to transmit information in times of emergency is invaluable, especially

[5] *See NPRM* at 13, para. 29.

[6] WWNO/WRKF FCC Statement at 3.

[7] *See NPRM* at 15-16, para. 36.

when the power grid is down and in remote areas of the country where the availability of other emergency communications messages is limited or nonexistent.

NPR recommends that the Commission factor public radio as a key component of any resilience strategy for power outages because of the overwhelming reliance upon broadcast radio to stay informed during these circumstances. When the power goes out, communities lose connections to TV and Internet news, but radio can still be accessed, particularly through car radios. This access to radio becomes even more important during an evacuation.

Public radio stations face significant needs for back-up power and alternative transmission locations (especially for origination sites of program signals and primary service areas), given their geographic reach and mission to serve underserved and unserved audiences. To this end, NPR recommends the FCC consider how public radio stations can be designated as a priority for reestablishing power after a disaster. Stations maintain continuous operations to support the public need during these times, but the stress that power outages place on back-up power sources can strain station resources and personnel. If public radio stations are prioritized by power companies for the reestablishing of power after a disaster, this would aid their ability to keep the public informed. If possible, power companies should communicate with public radio stations about the status of power outages.

For example, in the February 2021 winter storms in Oklahoma that lasted for several weeks and stressed the Midwest power grid, power companies conducted controlled rolling power outages to conserve energy. However, these rolling blackouts caused KOSU to go off the air two times because there was no communication as to when blackouts would occur. The station had no ability to keep generator engines warm at multiple rural locations with deep snow on the ground in anticipation of when a blackout could occur. Proactive communication and coordination from the

power companies to the stations affected by controlled outages could have prevented this from occurring.

Additionally, NPR recommends that communications companies prioritize restoration of Internet service to public radio stations. This would enable stations' newsgathering, production and broadcast operations when cell networks are strained. As the testimony from WWNO/WRKF noted, after Hurricane Ida, journalists were filing reports and recording interviews from their phones.[8] KOSU has also experienced similar constraints during the ice storms in 2020 and 2021 with the lack of reliable power and Internet service, forcing staff to rely upon cell networks to conduct their work. High cellular data usage, exacerbated by land-based outages, results in intermittent and sluggish connectivity, impeding the ability of news teams to report on emerging events while maintaining remote operations. Given the reliance upon cell networks when power is out or Internet service is unavailable, it would also be beneficial if public radio station managers or engineers could be granted first responder status for cellular data so that they can perform essential functions in maintaining news and broadcast operations.

Moreover, public radio stations need additional resources to invest in redundant program feeds (studio-to-transmitter or Internet) to transmitters in case of Internet and power outages, to maintain reliability of broadcast operations. During the October 2020 ice storm in Oklahoma, the weight of the ice damaged the satellite dish cover located on the roof of the KGOU studio in Norman. Until the ice melted sufficiently, KGOU had to transfer to a back-up stream to the PRSS to deliver a clear network signal. This back-up program feed was essential to maintaining a consistent, clear signal. Other stations report the need for investment into redundant program feeds to their transmitters. During the Almeda fire in 2020, Jefferson Public Radio lost its Internet connectivity because the fiber backbone that supports connectivity for Southern Oregon University

and the surrounding region was damaged in the fire. The station has invested in a redundant system to ensure it does not rely on this main backbone serving their region.

The Commission further seeks comment on how back-up power or alternative measures may help promote the continuity of service during or after disasters.[9] Back-up power sources are an essential component of the reliability and resiliency expected for the public broadcasting system. Public radio stations face significant needs for back-up power sources, given their geographic reach and mission to serve underserved and unserved audiences. The cost of investing in back-up power sources at multiple sites and types of facilities can be cost prohibitive for many nonprofit, noncommercial public radio stations. Moreover, a decade of level funding for the Corporation for Public Broadcasting ("CPB") coupled with the loss of the Public Telecommunications Facilities Program that provided dedicated federal funding toward public broadcasting station infrastructure has left stations constrained in investing in back-up resources or replacing aging infrastructure. CPB has cataloged more than 60,000 pieces of public media station equipment that need to be either updated or replaced, with an estimated cost of $300 million.[10] Many stations represented in the CPB FY2021 Infrastructure Funding Request have documented the need for investments in uninterruptable power supplies, emergency power generators, emergency transmitters, and back-up generators at studio, transmitter and translator sites, including as described above.

Stations may also rely upon outside operators of back-up power sources, particularly at leased sites. This arrangement may leave stations vulnerable if the equipment is not maintained, malfunctions during the disaster, or runs out of fuel. As WWNO's testimony notes, the station

[8] WWNO/WRKF FCC Statement at 6.

[9] *NPRM* at 16, para. 38.

depends upon a university back-up generator, and, during Hurricane Ida, that system had "critical failures."[11] KGOU had a similar experience when a generator owned by a tower operator ran out fuel. A more reliable solution would be for stations to invest in their own back-up power resources in order to maintain operational control and improve reliability, but resources would be required to support this investment.

Access to fuel sources after a disaster is another obstacle for public radio stations striving to maintain operations. As WWNO notes, its staff has had to drive miles to obtain fuel to run its generators. WVIK in the Quad Cities area reported to NPR that, following a derecho event in August 2020, its staff had to find a supplier seventy miles away. WTJX in the Virgin Islands ran a generator for four months following Hurricanes Irma and Maria, and faced significant difficulties accessing fuel. NPR recommends that the Commission consider how public radio stations can be prioritized for access to fuel, either through interagency coordination with the federal response to disasters or other means to expedite station access to fuel for generators.

Conclusion

For the foregoing reasons, NPR urges the Commission to consider public broadcasting, and specifically public radio stations, as an essential component of any resilience strategy for the nation's communications networks and support investment in public broadcasting infrastructure. As the Commission says, "Resilient communications networks are critical to economic growth, national security, emergency response, and nearly every facet of modern life."[12] Public radio stations know this first hand. Actions that support coordination between power and

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[10] *See* Corporation for Public Broadcasting, *Corporation for Public Broadcasting Infrastructure Funding Request and Justification FY 2021*, available at https://www.cpb.org/sites/default/files/appropriation/CP-Infrastructure-Funding-Request-and-Justification-4-28-2021.pdf

[11] WWNO/WRKF FCC Statement at 8.

[12] *NPRM* at 2, para. 4.

communications companies with public radio stations and promote more reliable access to Internet connectivity, cellular data, or fuel for these stations can fundamentally benefit the public—who are be served in critical times when power grids and cell networks go down by their local public radio broadcasts.

Respectfully submitted,

NATIONAL PUBLIC RADIO, INC.

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December 6, 2021